



[← Click here to return to the Appendixes Menu](#)



# Appendix B

Federal Register Notices

August 10, 1995 in Vieques, PR to solicit public comment on the DEIS for ROTH. In order to allow additional time for public review, the public hearings have been postponed and the public comment period has been extended to September 29, 1995. Notice of the revised hearing dates will be published in local newspapers at least 15 days prior to the hearings.

The DEIS has been distributed to various federal, Commonwealth, and local agencies, elected officials, special interest groups, and libraries. The DEIS is available for review at the following locations: Town Hall, Municipality of Vieques, Vieques Island, PR; Public Library, Municipality of Lajas, PR; and Mayor's Office, Lajas, PR. A limited number of copies of the DEIS are available by contacting Ms. Linda Blount, (804) 322-4892 or Sr. Jose Negron, Commander Fleet Air, Caribbean, (809) 965-4429.

Written statements and/or comments regarding the DEIS should be mailed to: Department of the Navy, Commander, Atlantic Division, Naval Facilities Engineering Command, 1510 Gilbert Street, Norfolk, VA 23511-2699 (Attn. Ms. Linda Blount, Code 2032LB). Questions may be directed to Ms. Linda Blount, (804) 322-4892 or Sr. Jose Negron, Commander Fleet Air, Caribbean, (809) 865-4429. All comments must be postmarked no later than September 29, 1995 to become part of the official record.

Dated: August 19, 1995.

**L.R. McNees,**

*LCDR, JAGC, USN, Federal Register Liaison Officer.*

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## DEPARTMENT OF ENERGY

### **Preparation of an Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada**

**AGENCY:** Department of Energy.

**ACTION:** Notice of intent.

**SUMMARY:** The U.S. Department of Energy (DOE) announces its intent to prepare an environmental impact statement (EIS) for a geologic repository at Yucca Mountain, Nye County, Nevada, for the disposal of spent nuclear fuel and high-level radioactive waste, in accordance with the Nuclear Waste Policy Act of 1982, as amended (NWP) (42 U.S.C. § 10101 *et seq.*), the National Environmental Policy Act

(NEPA) of 1969 (42 U.S.C. § 4321 *et seq.*), the Council on Environmental Quality regulations that implement the procedural provisions of NEPA (40 CFR Parts 1500-1508), and the DOE procedures for implementing NEPA (10 CFR Part 1021). DOE invites Federal, State, and local agencies, Native American tribal organizations, and other interested parties to participate in determining the scope and content of the EIS.

The NWP directs DOE to evaluate the suitability of the Yucca Mountain site in southern Nevada as a potential site for a geologic repository for the disposal of spent nuclear fuel and high-level radioactive waste. If the Secretary of Energy determines that the Yucca Mountain site is suitable, the Secretary may then recommend that the President approve the site for development of a repository. Under the NWP, any such recommendation shall be considered a major Federal action and must be accompanied by a final environmental impact statement. Accordingly, DOE is preparing this EIS in conjunction with any potential DOE recommendation regarding the development of a repository at Yucca Mountain.

The NWP provides that the environmental impact statement need not consider the need for a repository, the alternatives to geologic disposal, or alternative sites to the Yucca Mountain site. Therefore, this environmental impact statement will evaluate a proposal to construct, operate, and eventually close a repository at Yucca Mountain. The EIS will evaluate reasonable alternatives for implementing such a proposal in accordance with the NWP.

The NWP also provides that the Nuclear Regulatory Commission shall, to the extent practicable, adopt DOE's EIS in connection with any subsequent construction authorization and license that the Commission issues to DOE for a repository. The EIS process is scheduled to be completed in September 2000 and is separate from the licensing process that would be initiated by any submission of a license application by DOE to the Commission in June 2001.

The EIS will be prepared over a five-year period in conjunction with DOE's separate but parallel site suitability evaluation and potential license application. DOE is beginning the EIS process early to ensure that the appropriate data gathering and tests are performed to adequately assess potential environmental impacts, and to allow the public sufficient time to consider this complex program and to provide input.

**DATES:** DOE invites and encourages comments and suggestions on the scope of the EIS to ensure that all relevant environmental issues and reasonable alternatives are addressed. Public scoping meetings are discussed below in the **SUPPLEMENTARY INFORMATION** section. DOE will carefully consider all comments and suggestions received during the 120-day public scoping period that ends on December 5, 1995. Comments and suggestions received after the close of the public scoping period will be considered to the extent practicable.

**ADDRESSES:** Written comments on the scope of this EIS, requests to pre-register to speak at any of the public scoping meetings, questions concerning the proposed action and EIS, or requests for additional information on the EIS, should be directed to: Wendy R. Dixon, EIS Project Manager, Yucca Mountain Site Characterization Office, Office of Civilian Radioactive Waste Management, U.S. Department of Energy, 101 Convention Center Drive Suite P-110, MS 010, Las Vegas, NV 89109, Telephone: 1-800-967-3477, Facsimile: 1-800-967-0739.

**FOR FURTHER INFORMATION CONTACT:** For more information about this EIS, please contact Wendy R. Dixon at the address, above. For information on DOE's NEPA process, please contact: Carol M. Borgstrom, Director, Office of NEPA Policy and Assistance (EH-42), U.S. Department of Energy, 1000 Independence Avenue, S.W., Washington, D.C. 20585, Telephone: 1-202-586-4600 or leave a message at 1-800-472-2756.

## **SUPPLEMENTARY INFORMATION:**

### **Public Participation**

All interested persons, including Federal agencies, Native American tribal organizations, State and local government agencies, public interest groups, transportation interests, industry and utility organizations, regulators, and the general public are encouraged to take part in the EIS scoping process. Because of the anticipated public interest and national scope of the program, DOE will provide several methods for people to express their views and provide comments, request additional information and copies of the EIS, or pre-register to speak at the scoping meetings. Comments submitted by any of these means will become part of the official record for scoping.

### *Written Comments and Toll-Free Facsimile Number*

Written comments and requests may be mailed or sent by facsimile to Wendy R. Dixon at the address or toll-free facsimile number listed above.

### *Toll-Free Telephone Line*

All interested parties are invited to record their comments or request information on the scope of the EIS by calling a toll-free telephone number, 1-800-967-3477. Throughout the public scoping period, this number will be staffed between the hours of 9 a.m. to 9 p.m. Eastern Standard Time, Monday through Friday. During other hours, calls will be forwarded to an answering machine.

### *Electronic Mail*

Comments and information requests may be submitted by electronic mail to the following Internet electronic mail address: ymp—eirs@notes.ymp.gov.

### *Internet*

The public may access the Notice of Intent, request information, and provide comments via the World Wide Web at the following Uniform Resource Locator address: <http://www.ymp.gov>, under the listing *Environmental Impact Statement (EIS)* on the Yucca Mountain Project Home Page. When available, the EIS and other selected technical documents may also be accessed at this Uniform Resource Locator address.

### *Scoping Meetings*

DOE will hold 15 public scoping meetings in cities throughout the United States to provide and discuss information and to receive comments on the scope of this EIS. Table 1 at the end of this Notice lists the specific locations, dates, and times for each scoping meeting. Persons wishing to speak at any of these meetings can pre-register up to two days before the meeting by: (1) Calling the toll-free telephone number 1-800-967-3477, (2) writing to Wendy R. Dixon at the address listed above, or (3) sending their request to pre-register by facsimile or electronic mail, as identified above.

Persons wishing to speak who have not registered in advance can register at each meeting. These "walk-in registrants" will be accommodated to the extent practicable, following those persons who have pre-registered. Only one spokesperson per organization, group, or agency may present comments on its behalf. Oral statements will be limited to ten minutes; however, written comments can be of any length and submitted any time during the scoping period.

Each of the 15 public scoping meetings will have either a morning or afternoon session, and an evening session. Morning sessions will begin at 8:30 a.m. and end at 12:30 p.m., and afternoon sessions will begin at 12:00 p.m. and end at 4:00 p.m. Evening sessions will begin at 6:00 p.m. and end about 10:00 p.m. If additional time is required in order to accommodate all speakers wishing to present oral comments, the meeting facilitator will consult with the audience and DOE staff and determine whether to continue the meeting past the scheduled ending time. A court reporter will record all portions of the scoping meetings, and transcripts will be prepared and made a part of the official record of the scoping process.

Each session will have an introductory presentation, a question and answer period, and a public comment segment. A facilitator will begin the introductory presentation of each session by explaining the scoping meeting format. DOE staff will provide a brief description (lasting approximately 30–45 minutes) of the repository program, the EIS, and the scoping process. The question and answer period (lasting approximately 45 minutes) will provide members of the public an opportunity to ask questions and discuss various aspects of the repository and to obtain additional information that may be useful in formulating opinions and comments. Each member of the public will be allowed five minutes to ask questions. The meeting facilitator may allow extra time for additional questions depending on the number of people present who have indicated their desire to participate during the question and answer period. The meeting facilitator will begin the public comment portion of the scoping meeting after the question and answer period. At this time, members of the public will provide their comments on the scope of the EIS.

Each public scoping meeting also will have a separate information room containing exhibits and informational handouts about the repository program and the EIS. DOE and contractor staff will be available throughout the day to answer questions in an informal setting. A table with blank comment cards will also be available for people to privately prepare and submit written comments on the scope of the EIS. These comment cards will be included in the formal record of each scoping meeting.

### *Subsequent Document Preparation*

Results of scoping, including the transcripts from the question and answer periods and public comment segments, and all other oral and written

comments received by DOE, will be summarized in the EIS Implementation Plan. This Plan will guide the preparation of the EIS, and will describe the planned scope and content of the EIS, record the results of the scoping process, and contain EIS activity schedules. As a "living document," the Implementation Plan may be amended as needed to incorporate changes in schedules, alternatives, or EIS content.

The Implementation Plan will be available to the public for information purposes as soon as possible after the close of the public scoping process, and before issuing the Draft EIS. The Implementation Plan and the transcripts from the public scoping meetings will be available for inspection at major DOE facilities and public reading rooms in Nevada and across the country, as identified at the end of this Notice. Copies of the Implementation Plan, as well as the Draft and Final EIS and related comments, will be provided to anyone requesting copies of these documents.

Availability of the Draft EIS for public review, and the locations and times of public hearings on the Draft EIS, will be announced in the **Federal Register** and through local media (approximately in the Fall of 1998). After considering all public comments received on the Draft EIS, DOE will prepare and issue a Final EIS, followed thereafter by a Record of Decision (approximately in the Fall of 2000).

### **Background**

Spent nuclear fuel<sup>1</sup> has been and is being generated and stored in the United States as part of commercial power generation. The accumulation of spent nuclear fuel from commercial power reactor operations in the United States probably will continue for several decades. There are 109 operating commercial facilities at 75 sites in 34 States where spent nuclear fuel is stored. By the year 2035, total spent nuclear fuel from power reactors will amount to about 85,000 metric tons of heavy metal (i.e., metric tons of heavy metal, typically uranium, without materials such as cladding, alloy and structural materials) (MTHM).

Spent nuclear fuel and high-level radioactive waste<sup>2</sup>, generated from

<sup>1</sup> Spent nuclear fuel is fuel that has been withdrawn from a nuclear reactor following irradiation, the constituent elements of which have not been separated by reprocessing.

<sup>2</sup> High-level radioactive waste is the highly radioactive material resulting from reprocessing of spent nuclear fuel. It includes liquid waste produced directly in reprocessing and any solid material derived from such liquid waste that contains fission products in sufficient

DOE's national atomic energy defense and research activities, are primarily located at DOE's Hanford Reservation, the Savannah River Site, and the Idaho National Engineering Laboratory. Other spent nuclear fuel, either currently in DOE possession or which may come under DOE possession, includes material from foreign research reactors, approximately 29 domestic university reactors, 5 non-DOE research reactors, and 4 "special case" reactors at non-DOE locations.

In 1982, in response to the continued accumulation of spent nuclear fuel and high-level radioactive waste, Congress passed the NWPA. The purpose of the NWPA was to establish geologic repositories that would provide reasonable assurance that the public and the environment would be adequately protected from the hazards posed by these materials. In 1987, Congress amended the NWPA and directed DOE to evaluate the suitability of only the Yucca Mountain site in southern Nevada as a potential site for the first repository. If, based on this evaluation, the Secretary of Energy determines that the Yucca Mountain site is suitable, the Secretary may then recommend that the President approve the site for development of a repository.

Under the NWPA, DOE is prohibited from emplacing more than 70,000 MTHM of spent nuclear fuel and high-level radioactive waste in the first repository until such time as a second repository is in operation. The current planning basis calls for 63,000 MTHM of commercial spent nuclear fuel to be disposed of in the first repository, proposed to be located at the Yucca Mountain site. The planning basis also calls for the disposal of 7,000 MTHM equivalent of DOE-owned spent nuclear fuel and high-level radioactive waste in this first repository.

#### Proposed Action

If the site were found to be suitable, the proposed action would be to construct, operate, and eventually close a repository at Yucca Mountain for the geologic disposal of up to 70,000 MTHM of commercial and DOE-owned spent nuclear fuel and high-level radioactive waste. Spent nuclear fuel and high-level radioactive waste would be disposed of in the repository in a subsurface configuration that would ensure its long-term isolation from the human environment. Repository construction, operation, and closure would be

governed by the Nuclear Regulatory Commission's licensing process.

Construction would begin if the Nuclear Regulatory Commission authorizes construction of the repository. Surface facilities would be designed and constructed to receive, and prepare for disposal, spent nuclear fuel and high-level radioactive waste that would arrive in transportation casks by highway and by rail. Capability to treat or package the secondary wastes generated during disposal operations would also be provided. Subsurface facilities would be designed and constructed for emplacement of spent nuclear fuel and high-level radioactive waste in disposal drifts. Subsurface facilities would primarily include access ramps, ventilation systems, disposal drifts, and equipment alcoves.

Disposal operations would begin once the Nuclear Regulatory Commission issues a license allowing receipt of spent nuclear fuel and high-level radioactive waste. Disposal operations would be expected to last up to 40 years, depending on shipment schedules. Disposal drifts would continue to be constructed during this time period as necessary. Spent nuclear fuel assemblies,<sup>3</sup> and canisters containing assemblies<sup>4</sup> or vitrified (i.e., solidified) high-level radioactive waste<sup>5</sup> would be shipped to the repository in transportation casks that meet the Nuclear Regulatory Commission and U.S. Department of Transportation requirements for shipping by truck or rail<sup>6</sup>. The assemblies would be removed from the transportation casks, which would be placed back into service after decontamination and maintenance or after necessary repairs were completed. Canisters and assemblies would be transferred to a "hot" cell—a room where remotely-controlled equipment would be used to place the material in disposal containers. These "waste packages" (i.e., assemblies and canisters

in disposal containers) would be transported underground in a transportation vehicle having radiation shielding for worker protection. Monitoring equipment, which would either be placed in selected drifts or would be mobile remote-sensing devices, would monitor performance of waste packages and aspects of the local repository geology.

The closure/post-closure period would begin after the Nuclear Regulatory Commission amends the license to authorize permanent closure. Underground equipment would be removed, repository openings would be backfilled and sealed, and the surface facilities would be decontaminated, decommissioned, and dismantled or converted to other uses. Institutional controls, such as permanent markers and monuments, would be designed and constructed to last thousands of years and discourage human activities that could compromise the waste isolation capabilities of the repository.

The disposal and closure/post-closure activities would be designed and implemented so that the combination of engineered (i.e., waste package and any backfill) and natural (geologic system) barriers would isolate the spent nuclear fuel and high-level radioactive waste. The combination of barriers would meet a standard to be specified by the Environmental Protection Agency, which has been entrusted to develop a radiation release standard pursuant to Section 801 of the Energy Policy Act of 1992 (42 U.S.C. § 10141 note); individual barriers would perform according to Nuclear Regulatory Commission requirements, including its performance objectives at 10 CFR 60.113. The engineered barrier must provide substantially complete containment of spent nuclear fuel and high-level radioactive waste for between 300 and 1,000 years by using corrosion resistant materials in the waste package.

Beyond 1,000 years, continued isolation would be assisted by features that would limit the rate at which radioactive components of the waste would be released. The rate of release would be substantially affected by natural conditions, the heat generation rate of spent nuclear fuel and high-level radioactive waste (i.e., thermal load), and its rate of heat dissipation. First, different thermal loads would affect directly the internal and external waste package temperatures, thereby affecting the corrosion rate and integrity of the waste package. Second, the heat would affect the geochemistry, hydrology, and mechanical stability of the disposal drifts, which in turn would influence the flow of groundwater and the

concentrations and other highly radioactive material that the Nuclear Regulatory Commission, consistent with existing law, determines by rule requires permanent isolation.

<sup>3</sup> A fuel assembly is made up of fuel elements held together by plates and separated by spacers attached to the fuel cladding.

<sup>4</sup> Under one scenario, spent nuclear fuel assemblies would be sealed in a multi-purpose canister that would then be inserted into separate casks/containers for storage, transportation, and disposal. Other canisters are available and include single-purpose systems, which require transferring of individual assemblies from one cask/container to another for storage, transport, and disposal. Another alternative would be dual-purpose systems which require storing and transporting individual assemblies in one cask and disposing of them in another container.

<sup>5</sup> Vitrified high-level radioactive waste would be sealed in canisters suitable for transport in a truck or train cask.

<sup>6</sup> Barges may also be used for intermodal shipments of spent nuclear fuel and high-level radioactive waste from generator sites to nearby locations for transfer to truck and rail.

transport of radionuclides from the engineered and natural barrier systems to the environment. Therefore, the long-term performance of the repository would be managed by appropriately spacing the waste packages within disposal drifts and the distances between disposal drifts, and by selectively placing spent nuclear fuel and high-level radioactive waste packages to account for their individual heat generation rates.

### Alternatives

DOE has preliminarily identified for analysis in the EIS a full range of reasonable implementation alternatives for the construction, operation, and closure/post-closure of a repository at Yucca Mountain. These implementation alternatives are based on thermal load objectives and include High Thermal Load, Intermediate Thermal Load, and Low Thermal Load alternatives.

Under each implementation alternative, DOE will evaluate different spent nuclear fuel and high-level radioactive waste packaging and transportation options. DOE anticipates that these options would produce the broadest range of potential configurations for both surface facilities and possible operational and disposal conditions at the repository. Evaluation of these options will identify the full range of reasonably foreseeable impacts to human health and the environment associated with each implementation alternative.

#### High Thermal Load Alternative

Under the High Thermal Load implementation alternative, spent nuclear fuel and high-level radioactive waste would be disposed in an underground configuration that would generate the upper range of repository temperatures while meeting performance objectives to isolate the material in compliance with Environmental Protection Agency standards and Nuclear Regulatory Commission requirements. Under this alternative, the emplacement density would likely be greater than 80 MTHM per acre. This alternative would represent the highest repository thermal loading based on available information and expected test results.

#### Intermediate Thermal Load Alternative

Under the Intermediate Thermal Load implementation alternative, spent nuclear fuel and high-level radioactive waste would be disposed in an underground configuration that would generate an intermediate range of repository temperatures (compared to the High and Low Thermal Load

alternatives) while meeting performance objectives to isolate the material in compliance with Environmental Protection Agency standards and Nuclear Regulatory Commission requirements. Under this alternative, the disposal density would likely range between 40 to 80 MTHM per acre.

#### Low Thermal Load Alternative

Under the Low Thermal Load implementation alternative, spent nuclear fuel and high-level radioactive waste would be disposed in an underground configuration that would provide the lowest potential repository thermal loading (based on available information and expected test results) while meeting performance objectives to isolate the material in compliance with Environmental Protection Agency standards and Nuclear Regulatory Commission requirements. Under this alternative, the disposal density would likely be less than 40 MTHM per acre.

#### Packaging Options

As part of each implementation alternative, two packaging options would be evaluated. Under Option 1, spent nuclear fuel assemblies would be packaged and sealed in multi-purpose canisters at the generator sites prior to being transported to the repository in Nuclear Regulatory Commission-certified casks. High-level radioactive waste also would be packaged and sealed in canisters prior to shipment in similar casks. Under Option 2, spent nuclear fuel assemblies (without canisters) and sealed canisters of high-level radioactive waste would be transported to the repository in Nuclear Regulatory Commission-certified casks. Under both options, assemblies and canisters with intact seals would be removed from the casks and placed in disposal containers at the repository.

DOE recognizes that it is likely that a mix of spent nuclear fuel assemblies and canisters (and canister systems) of spent nuclear fuel and vitrified high-level radioactive waste would arrive at the repository during disposal operations. However, since the specific mix is speculative, the above packaging options were chosen to produce the broadest range of potential configurations for both surface facilities and possible operational and disposal conditions at the repository. These options were also selected to reflect the potential range of exposures to workers and the public at the generator sites, along transportation routes, and at the repository from the packaging, transport, and disposal of spent nuclear fuel and high-level radioactive waste.

#### Transportation

As part of each implementation alternative, two national transportation options and three regional (i.e., within the State of Nevada) transportation options would be evaluated. These options would be expected to result in the broadest range of operating conditions relevant to potential impacts to human health and the environment.

In a national context, the first option would consist of shipping all spent nuclear fuel and high-level radioactive waste by truck, from the generator site to the repository.

The second national option would consist of shipment by rail, except from those generator sites (as many as 19) that may not have existing capabilities to load and ship rail casks. For such sites, the spent nuclear fuel would be transported by truck to the repository, or to a facility near the nuclear power plant where it would be transferred to rail cars for shipment to the repository.

In a regional context, there are three transportation options: two of these options apply to shipments that would arrive in Nevada by rail, and the third applies to shipments that would arrive in Nevada by legal weight truck.<sup>7</sup>

The first regional transportation option would consist of several rail corridors to the repository. The rail corridor option would involve identifying and applying siting criteria, based on engineering considerations (e.g., topography and soils), potential land use restrictions (e.g., wilderness areas and existing conflicting uses), and any other factors identified from the scoping process.

The second regional transportation option would involve the use of heavy haul truck<sup>8</sup> routes to the repository. The heavy haul option would include the construction and use of an intermodal transfer facility to receive shipments that would arrive in Nevada by rail; the intermodal transfer facility would be located at the beginning of the heavy haul route. The heavy haul option would include any need to improve the local transportation infrastructure.

The third regional transportation option would involve legal weight truck shipments directly to the repository. Under this option, a transfer facility would not be required.

#### No Action

The No Action alternative would evaluate termination of site

<sup>7</sup> A legal weight truck consists of a tractor, semi-trailer, and loaded cask, with a maximum gross weight of 80,000 pounds.

<sup>8</sup> A heavy haul truck consists of a tractor, semi-trailer, and loaded cask, with a gross weight in excess of 129,000 pounds.

characterization activities at Yucca Mountain and the continued accumulation of spent nuclear fuel and high-level radioactive waste at commercial storage sites and DOE facilities. Spent nuclear fuel and high-level radioactive waste would continue to be managed for the foreseeable future at existing commercial storage sites and DOE facilities located in 34 States. The No Action alternative, although contrary to the Congressional desire to provide a permanent solution for isolation of the Nation's spent nuclear fuel and high-level radioactive waste, provides a baseline against which the implementation alternatives can be compared.

At the Yucca Mountain site, the surface facilities, excavation equipment, and other support facilities would be dismantled and removed for reuse or recycling, or would be disposed of in solid waste landfills. Disturbed surface areas would be reclaimed and excavated openings to the subsurface would be sealed and backfilled.

At commercial reactors, spent nuclear fuel would continue to be generated and stored in either water pools or in canisters, until storage space at individual reactors becomes inadequate, at which time reactor operations would cease. DOE-owned spent nuclear fuel and high-level radioactive waste would continue to be managed at three primary sites—the Hanford Reservation, Savannah River Site, and the Idaho National Engineering Laboratory.

#### *Environmental Issues To Be Examined in the EIS*

This EIS will examine the site-specific environmental impacts from construction, operation, and eventual closure of a repository for spent nuclear fuel and high-level radioactive waste disposal at Yucca Mountain, Nevada. Transportation-related impacts of the alternatives will also be analyzed. Through internal discussion and outreach programs with the public, DOE is aware of many environmental issues related to the construction, operation, and closure/post-closure phases of such a repository. The issues identified here are intended to facilitate public scoping. The list is not intended to be all-inclusive or to predetermine the scope of the EIS, but should be used as a starting point from which the public can help DOE define the scope of the EIS.

- Radiological and non-radiological releases. The potential effects to the public and on-site workers from radiological and nonradiological releases;

- Public and Worker Safety and Health. Potential health and safety

impacts (e.g., injuries) to on-site workers during the unloading, temporary surface storage, and underground emplacement of waste packages at Yucca Mountain;

- Transportation. The potential impacts associated with national and regional shipments of spent nuclear fuel and high-level radioactive waste from reactor sites and DOE facilities to the Yucca Mountain site will be assessed. Regional transportation issues include: (a) technical feasibility, (b) socioeconomic impacts, (c) land use and access impacts, and (d) impacts of constructing and operating a rail spur, a heavy haul route, and/or a transfer facility;

- Accidents. The potential impacts from reasonably foreseeable accidents, including any accidents with low probability but high potential consequences;

- Criticality. The likelihood that a self-sustaining nuclear chain reaction could occur and its potential consequences;

- Waste Isolation. Potential impacts associated with the long-term performance of the repository;

- Socioeconomic Conditions. Potential regional (i.e., in Nevada) socioeconomic impacts to the surrounding communities, including impacts on employment, tax base, and public services;

- Environmental Justice. Potential for disproportionately high and adverse impacts on minority or low-income populations;

- Pollution Prevention. Appropriate and innovative pollution prevention, waste minimization, and energy and water use reduction technologies to eliminate or significantly reduce use of energy, water, hazardous substances, and to minimize environmental impacts;

- Soil, Water, and Air Resources. Potential impacts to soil, water quality, and air quality;

- Biological Resources. Potential impacts to plants, animals, and habitat, including impacts to wetlands, and threatened and endangered species;

- Cultural Resources. Potential impacts to archaeological/historical sites, Native American resources, and other cultural resources;

- Cumulative impacts from the proposed action and implementing alternatives and other past, present, and reasonably foreseeable future actions;

- Potential irreversible and irretrievable commitment of resources.

Under the No Action alternative, potential environmental effects associated with the shutdown of site characterization activities at Yucca Mountain will be estimated. Potential

environmental effects from the continued accumulation of spent nuclear fuel and high-level radioactive waste at commercial reactors and DOE sites will be addressed by summarizing previous relevant environmental analyses and by performing new analyses of representative sites, as appropriate. At the Yucca Mountain site, the potential environmental consequences from the reclamation of disturbed surface areas, and the sealing of excavated openings following the dismantlement and removal of facilities and equipment, will be quantified. These analyses would be similar in level of detail to the analyses of the implementing alternatives. At the commercial reactor and DOE sites, the potential environmental consequences will be addressed in terms of risk to the environment and the public from long-term management of spent nuclear fuel and high-level radioactive waste. In addition, the loss of storage capacity, the need for additional capacity, and their potential consequences to continued reactor operations, will be described.

#### **Consultations With Other Agencies**

The NWPA requires DOE to solicit comments on the EIS from the Department of the Interior, the Council on Environmental Quality, the Environmental Protection Agency, and the Nuclear Regulatory Commission (42 U.S.C. § 10134(a)(1)(D)). DOE also intends to consult with the Departments of the Navy and Air Force and will solicit comments from other agencies, the State of Nevada, affected units of local government, and Native American tribal organizations, regarding the environmental issues to be addressed by the EIS.

#### **Relationship to Other DOE NEPA Reviews**

DOE is preparing or has completed other NEPA documents that may be relevant to the Office of Civilian Radioactive Waste Management Program and this EIS. If appropriate, this EIS will incorporate by reference and update information taken from these other NEPA documents. These documents (described below) are available for inspection by the public at the DOE Freedom of Information Reading Room (1E-190), Forrestal Building, 1000 Independence Ave., S.W., Washington, D.C. and will be made available in Nevada at locations to be announced at the public scoping meetings. These documents include the following:

- *Environmental Assessment, Yucca Mountain Site*, Nevada Research and

Development Area, Nevada, DOE/RW-0073, 1986.

- *Environmental Assessment for a Monitored Retrievable Storage Facility*, DOE/RW-0035, 1986.

- *Environmental Impact Statement for a Multi-Purpose Canister System for the Management of Civilian and Naval Spent Nuclear Fuel*. The Notice of Intent was published on October 24, 1994 (59 FR 53442). The scoping process for this EIS has been completed and an Implementation Plan is being prepared. The Draft EIS is scheduled to be issued for public review in late 1995.

- *Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory Environmental Restoration and Waste Management Programs Environmental Impact Statement* [Final EIS issued April 1995 (DOE/EIS-0203-F); Record of Decision (60 FR 28680-96, June 1, 1995)]. This EIS analyzes the potential environmental consequences of managing DOE's inventory of spent nuclear fuel over the next 40 years. The Nevada Test Site was considered but was not selected as a DOE spent nuclear fuel management site.

- *Waste Management Programmatic Environmental Impact Statement* (formerly Environmental Management Programmatic EIS). A revised Notice of Intent was published January 24, 1995 (60 FR 4607). This Programmatic EIS will address impacts of potential DOE waste management actions for the treatment, storage, and disposal of waste. The Draft EIS is scheduled to be issued for public review in September 1995.

- *Environmental Impact Statement for a Proposed Nuclear Weapons Nonproliferation Policy Concerning Foreign Research Reactor Spent Nuclear Fuel* [Notice of Intent published October 21, 1993 (58 FR 54336)]. The draft EIS was issued for public review in March 1995 (DOE/EIS-0218D). This EIS addresses the potential environmental impacts of the proposed policy's implementation. Under the proposed policy, the United States could accept up to 22,700 foreign research reactor spent nuclear fuel elements over a 10-15 year period.

- *Environmental Impact Statement on the Transfer and Disposition of Surplus Highly Enriched Uranium* (formerly part of the Programmatic Environmental Impact Statement for Long-Term Storage and Disposition of Weapons-Usable Fissile Materials). The Notice of Intent was issued April 5, 1995 (60 FR 17344). This EIS will address disposition of DOE's surplus highly enriched uranium to support the President's Nonproliferation Policy. The

Draft EIS is scheduled to be issued in September 1995.

- *Programmatic Environmental Impact Statement for Storage and Disposition of Weapons-Usable Fissile Materials* [Notice of Intent published June 21, 1994 (59 FR 31985)]. This Programmatic EIS will evaluate alternatives for long-term storage of all weapons-usable fissile materials (primarily plutonium and highly enriched uranium retained for strategic purposes—not surplus) and disposition of surplus weapons-usable fissile materials (excluding highly enriched uranium), so that risk of proliferation is minimized. The Nevada Test Site is a candidate storage site.

- *Tritium Supply and Recycling Programmatic Environmental Impact Statement*. A revised Notice of Intent was published October 28, 1994 (59 FR 54175), and the Draft Programmatic EIS was issued in March 1995 (60 FR 14433, March 17, 1995). Public hearings on the Draft Programmatic EIS were held in April 1995, and a Final Programmatic EIS is scheduled for October 1995. This EIS addresses how to best assure an adequate tritium supply and recycling capability. The Nevada Test Site is an alternative site for new tritium supply and recycling facilities.

- *Stockpile Stewardship and Management Programmatic Environmental Impact Statement*. A Notice of Intent was published June 14, 1995 (60 FR 31291). A prescoping workshop was held on May 19, 1995, and scoping meetings are scheduled to be held during July and August 1995. This Programmatic EIS will evaluate proposed future missions of the Stockpile Stewardship and Management Program and potential configuration (facility locations) of the nuclear weapons complex to accomplish the Stockpile Stewardship and Management Program missions. The Nevada Test Site is an alternative site for potential location of new or upgraded Stockpile Stewardship and Management Program facilities.

- *Site-Wide Environmental Impact Statement for the Nevada Test Site* [Notice of Intent published August 10, 1994 (59 FR 40897)]. This EIS will address resource management alternatives for the Nevada Test Site to support current and potential future missions involving defense programs, research and development, waste management, environmental restoration, infrastructure maintenance, transportation of wastes, and facility upgrades and alternative uses. The public scoping process has been completed, and the Implementation Plan was issued in July 1995. The Draft

EIS is scheduled to be issued for public review in September 1995.

- *Environmental Impact Statement for the Continued Operation of the Pantex Plant and Associated Storage of Nuclear Weapon Components* [Notice of Intent published May 23, 1994 (59 FR 26635); an amended Notice of Intent published June 23, 1995 (60 FR 32661)]. This EIS will address the potential environmental impacts of the continued operation of the Pantex Plant, which includes near- to mid-term foreseeable activities and the nuclear component storage activities at other DOE sites associated with nuclear weapon disassembly operations at the Pantex Plant. The Nevada Test Site is being considered as an alternative site for relocation of interim plutonium pit storage.

#### Public Reading Rooms

Copies of the Implementation Plan, and the Draft and Final EISs, will be available for inspection during normal business hours at the following public reading rooms. DOE may establish additional information locations and will provide an updated list at the public scoping meetings.

Albuquerque Operations Office,  
National Atomic Museum, Bldg.  
20358, Wyoming Blvd., S.E., Kirtland  
Air Force Base, Albuquerque, NM  
87117. Attn: Diane Leute (505) 845-  
4378

Atlanta Support Office, U.S. Dept. of  
Energy, Public Reading Room, 730  
Peachtree Street, Suite 876, Atlanta,  
GA 30308-1212. Attn: Nancy Mays/  
Laura Nicholas (404) 347-2420

Bartlesville Project Office/National  
Institute for Petroleum and Energy  
Research, Library, U.S. Dept. of  
Energy, 220 Virginia Avenue,  
Bartlesville, OK 74003. Attn: Josh  
Stroman (918) 337-4371

Bonneville Power Administration, U.S.  
Dept. of Energy, BPA-C-KPS-1, 905  
N.E. 11th Street, Portland, OR 97208.  
Attn: Sue Ludeman (503) 230-7334

Chicago Operations Office, Document  
Dept., University of Illinois at  
Chicago, 801 South Morgan Street,  
Chicago, IL 60607. Attn: Seth Nasatir  
(312) 996-2738

Dallas Support Office, U.S. Dept. of  
Energy, Public Reading Room, 1420  
Mockingbird Lane, Suite 400, Dallas,  
TX 75247. Attn: Gailene Reinhold  
(214) 767-7040

Fernald Area Office, U.S. Dept. of  
Energy, Public Information Room,  
FERMCO, 7400 Willey Road,  
Cincinnati, OH 45239. Attn: Gary  
Stegner (513) 648-3153

Headquarters Office, U.S. Dept. of  
Energy, Room 1E-190, Forrestal Bldg.,

1000 Independence Avenue, S.W., Washington, D.C. 20585. Attn: Gayla Sessoms (202) 586-5955

Idaho Operations Office, Idaho Public Reading Room, 1776 Science Center Dr., Idaho Falls, ID 83402. Attn: Brent Jacobson (208) 526-1144

Kansas City Support Office, U.S. Dept. of Energy, Public Reading Room, 911 Walnut Street, 14th Floor, Kansas City, MO 64106. Attn: Anne Scheer (816) 426-4777

Office of Civilian Radioactive Waste Management National Information Center, 600 Maryland Avenue, S.W., Suite 760, Washington, D.C. 20024. Attn: Paul D'Anjou (202) 488-6720

Oak Ridge Operations Office, U.S. Dept. of Energy, Public Reading Room, 55 South Jefferson Circle, Room 112, Oak Ridge, TN 37831-8510. Attn: Amy Rothrock (615) 576-1216

Oakland Operations Office, U.S. Dept. of Energy, Public Reading Room, EIC, 8th Floor, 1301 Clay Street, Room 700N, Oakland, CA 94612-5208. Attn: Laura Noble (510) 637-1762

Pittsburgh Energy Technology Center, U.S. Dept. of Energy, Bldg. 922/M210, Receiving Department, Building 166, Cochran Mill Road, Pittsburgh, PA 15236-0940. Attn: Ann C. Dunlap (412) 892-6167

Richland Operations Office, U.S. Dept. of Energy, Public Reading Room, 100 Sprout Rd., Room 130 West, Mailstop H2-53, Richland, WA 99352. Attn: Terri Traub (509) 376-8583

Rocky Flats Field Office, Front Range Community College Library, 3645 West 112th Avenue, Westminster, CO 80030. Attn: Nancy Ben (303) 469-4435

Savannah River Operations Office, Gregg-Graniteville Library, University of S. Carolina-Aiken, 171 University Parkway, Aiken, SC 29801. Attn: James M. Gaver (803) 725-2889

Southeastern Power Administration, U.S. Dept. of Energy, Legal Library, Samuel Elbert Bldg., 2 South Public Square, Elberton, GA 30635-2496.

Attn: Joel W. Seymour/Carol M. Franklin (706) 213-3800

Southwestern Power Administration, U.S. Dept. of Energy, Public Reading Room, 1 West 3rd, Suite 1600, Tulsa, OK 74103. Attn: Marti Ayers (918) 581-7426

Strategic Petroleum Reserve Project Management Office, U.S. Dept. of Energy, SPRPMO/SEB Reading Room, 900 Commerce Road East, New Orleans, LA 70123. Attn: Ulysess Washington (504) 734-4243

Yucca Mountain Science Centers

Yucca Mountain Science Center, U.S. 95—Star Route 374, Beatty, NV 89003. Attn: Marina Anderson (702) 553-2130

Yucca Mountain Science Center, 4101-B Meadows Lane, Las Vegas, NV 89107. Attn: Melinda D'ouville (702) 295-1312

Yucca Mountain Science Center, 1141 South Hwy. 160, Pahrump, NV 89041. Attn: Lee Krumm (702) 727-0896

TABLE 1.—SCOPING MEETINGS

Location of scoping meeting	Dates/times <sup>1</sup>
Pahrump Community Center, 400 N. Hwy. 160, Pahrump, NV 89048 ....	Tuesday, August 29, 1995, morning/evening sessions.
Boise Centre on the Grove, 850 W. Front St., Boise, ID 83702 .....	Wednesday, September 6, 1995, morning/evening sessions.
Lawlor Events Center, University of Nevada-Reno Campus, Reno, NV 89667.	Friday, September 8, 1995, morning/evening sessions.
University of Chicago, Downtown MBA Center, 450 N. Cityfront Plaza Drive, Chicago, IL 60611.	Tuesday, September 12, 1995, morning/evening sessions.
Cashman Field, 850 Las Vegas Blvd. North, Las Vegas, NV 89101 .....	Friday, September 15, 1995, morning/evening sessions .
Denver Convention Complex, 700 14th Street, Denver, CO 80202 .....	Tuesday, September 19, 1995, afternoon/evening sessions.
Sacramento Public Library, 828 I Street, Sacramento, CA 95814 .....	Thursday, September 21, 1995, afternoon/evening sessions.
Arlington Community Center, 2800 South Center Street, Dallas, TX 76004.	Tuesday, September 26, 1995, afternoon/evening sessions.
Caliente Youth Center, Highway 93, Caliente, NV 89008 .....	Thursday, September 28, 1995, morning/evening sessions.
Hilton Inn, 150 West 500 South, Salt Lake City, UT 84111 .....	Thursday, October 5, 1995, afternoon/evening sessions.
Maritime Institute of Technology and Graduate Studies, 5700 Hammonds Ferry Rd., Linthicum (near Baltimore), MD 21090.	Wednesday, October 11, 1995, morning/evening sessions.
Russell Sage Conference Center, 45 Ferry St., Troy (Albany), NY 12180.	Friday, October 13, 1995, afternoon/evening sessions.
Georgia International Convention Center, 1902 Sullivan Road, College Park (Atlanta), GA 30337.	Tuesday, October 17, 1995, morning/evening sessions.
Penn Valley Community College, 3201 S.W. Trafficway, Kansas City, MO 64111.	Friday, October 20, 1995, afternoon/evening sessions.
Tonopah Convention Center, 301 Brougner, Tonopah, NV 89049 .....	Tuesday, October 24, 1995, morning/evening sessions.

<sup>1</sup> Session times are as follows: Morning (8:30 a.m.—12:30 p.m.), Afternoon (12:00 a.m.—4:00 p.m.), Evening (6:00 p.m.—10:00 p.m.).

Issued in Washington, D.C., this 1st day of August, 1995.

**Peter N. Brush,**

*Acting Assistant Secretary, Environment, Safety and Health.*

[FR Doc. 95-19396 Filed 8-4-95; 8:45 am]

BILLING CODE 6450-01-P

**Floodplain/Wetland Involvement Notification and Statement of Findings for a Proposed Removal Action at the Weldon Spring Site, St. Charles Co., Missouri**

**AGENCY:** Office of Environmental Management, Department of Energy (DOE).

**ACTION:** Notice of floodplain/wetland involvement and statement of findings.

**SUMMARY:** The U.S. Department of Energy (DOE) is proposing to conduct a

removal action at the Weldon Spring site to remove radiologically contaminated soil from a vicinity property within a floodplain and wetland located within the heavily used State of Missouri Weldon Spring Conservation Area. The proposed action will eliminate any potential risk to the health of recreational users of the conservation area. In accordance with 10 CFR Part 1022, DOE has prepared a floodplain and wetlands assessment. The proposed action will be performed in a manner so as to avoid or minimize



Alternative. The Strategic Arms Reduction Treaty II (START II) requires deactivation of the Peacekeeper Missile System. Deactivation will only occur if the Treaty is ratified by Russia and entered into force. As modified by the Helsinki Agreement, the Treaty requires complete dismantlement by December

31, 2007. In order to meet the Treaty deadline, deactivation could start as early as October 2000.

Public scoping meetings are planned in the towns of Cheyenne, Wheatland, and Torrington, Wyoming. The purpose of these meetings is to determine the scope of issues to be addressed and to

help identify significant environmental issues to be analyzed in depth. Notice of the times and locations of the meetings will be made available to the community using the local news media. The schedule for the scoping meetings is as follows:

Date	Location	Time
June 28, 1999 .....	East High School, 2800 E. Pershing Blvd., Cheyenne, WY ...	6:30–9:30 p.m.
June 29, 1999 .....	Wheatland High School, 1207 13th Street, Wheatland, WY ...	6:30–9:30 p.m.
June 30, 1999 .....	Torrington High School, 23rd Ave & West C, Torrington, WY	6:30–9:30 p.m.

In addition to seeking public input on environmental issues and concerns at the scoping meetings, the Air Force is soliciting written comments regarding the EIS scope. To ensure the Air Force will have sufficient time to fully consider public inputs on issues, written comments should be mailed for receipt no later than August 2, 1999.

Please direct written comments or requests for further information concerning the Peacekeeper system deactivation/dismantlement EIS to: Mr. Jonathan D. Farthing, HQ AFCEE/ECA 3207 North Road, Brooks AFB, TX 78235–5363, (210) 536–3787.

**Janet A. Long,**

*Air Force Federal Register Liaison Officer.*

[FR Doc. 99–14847 Filed 6–10–99; 8:45 am]

BILLING CODE 5001–05–U

## DEPARTMENT OF ENERGY

### Office of Arms Control and Nonproliferation Policy; Proposed Subsequent Arrangement

**AGENCY:** Department of Energy.

**ACTION:** Subsequent arrangement.

**SUMMARY:** The Department is providing notice of a proposed “subsequent arrangement” under the Agreement for Cooperation Between the Government of the United States of America and the Government of Canada Concerning the Civil Uses of Atomic Energy and the Agreement for Cooperation Between the Government of the United States of America and the Government of the Republic of Korea Concerning Civil Uses of Atomic Energy. This notice is being issued under the authority of Section 131 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2160).

The subsequent arrangement RTD/CA(KO)–1 concerns the return of 8,431 grams of CANFLEX Fuel Bundle of which 6,747 grams consists of 111.7 grams of the isotope U–235 (1.64 percent enrichment) and the remaining 1,684 grams consists of 33.3 grams of

the isotope U–235 (1.98 percent enrichment). Included in this return is 5,153 grams of enriched sintered UO<sub>2</sub> pellets of which 3,965 grams consists of 65 grams of the isotope U–235 (1.64 percent enrichment) and the remaining 1,188 grams consists of 23.5 grams of the isotope U–235 (1.98 percent enrichment). The material is being returned to Canada from the Republic of Korea to be irradiated for performance test in NRU reactor in Canada as part of a Joint Canada/Korea fuel development program. This will be the first of a series of returns to Canada until the total amount of material originally transferred to the Republic of Korea to be incorporated into CANFLEX fuel bundles is returned to AECL. The original retransfer was implemented September 1998 and is documented as RTD/KO(CA)–7.

In accordance with Section 131 of the Atomic Energy Act of 1954, as amended, we have determined that this subsequent arrangement will not be inimical to the common defense and security.

This subsequent arrangement will take effect no sooner than June 28, 1999.

Dated: June 7, 1999.

For the Department of Energy.

**Edward T. Fei,**

*Deputy Director, International Policy and Analysis Division, Office of Arms Control and Nonproliferation.*

[FR Doc. 99–14883 Filed 6–10–99; 8:45 am]

BILLING CODE 6450–01–P

## DEPARTMENT OF ENERGY

### Floodplain and Wetlands Involvement; Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada

**AGENCY:** Department of Energy.

**ACTION:** Notice of floodplain and wetlands involvement.

**SUMMARY:** The U.S. Department of Energy (DOE) is proposing to construct, operate and monitor, and eventually close a geologic repository for the disposal of spent nuclear fuel and high-level radioactive waste at Yucca Mountain, Nye County, Nevada. As part of its proposal, DOE is considering shipping spent nuclear fuel and high-level radioactive waste in the State of Nevada over a rail line that would be constructed or over an existing highway route that may need upgrading to accommodate heavy-haul trucks. Portions of the rail corridor or highway route would cross perennial and ephemeral streams and their associated floodplains, as well as possible wetlands. Furthermore, portions of the transportation system in the immediate vicinity of the proposed repository would be located within the 100-year floodplains of Midway Valley Wash, Drillhole Wash, Busted Butte Wash and/or Fortymile Wash. No other aspect of repository-related operations or nuclear or nonnuclear repository facilities would be located within the 500-year or 100-year floodplains of these washes. In accordance with DOE regulations for Compliance with Floodplain/Wetlands Environmental Review Requirements (10 CFR Part 1022), DOE will prepare a floodplain and wetlands assessment commensurate with proposed decisions and available information. The assessment will be included in the Environmental Impact Statement (EIS) for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada. A draft of this EIS is scheduled to be published during the summer of 1999.

**DATES:** The public is invited to comment on this notice on or before July 1, 1999. Comments received after this date will be considered to the extent practicable.

**ADDRESSES:** Comments on this notice should be addressed to Ms. Wendy Dixon, EIS Project Manager, Yucca Mountain Site Characterization Office,

U.S. Department of Energy, P.O. Box 30307, M/S 010, Las Vegas, Nevada 89036-0307. Comments also can be submitted via electronic mail to: eisir@notes.ymmp.gov.

**FOR FURTHER INFORMATION CONTACT:**

*Proposed Action:* Ms. Wendy Dixon, EIS Project Manager, at the above address, or by calling (800)-881-7292.

*Floodplain and Wetlands*

*Environmental Review Requirements:*

Ms. Carol Borgstrom, Office of NEPA Policy and Assistance (EH-42), U.S. Department of Energy, 1000 Independence Avenue, S.W., Washington, D.C. 20585, (202)-586-4600 or leave a message at (800) 472-2756.

**SUPPLEMENTARY INFORMATION:**

In accordance with the Nuclear Waste Policy Act, as amended, DOE is studying Yucca Mountain in Nye County, Nevada, to determine its suitability for the deep geologic disposal of commercial and DOE spent nuclear fuel and high-level radioactive waste. In 1989, DOE published a Notice of Floodplain/Wetlands Involvement (54 FR 6318, February 9, 1989) for site characterization at Yucca Mountain, and in 1992 published a Floodplain Statement of Findings (57 FR 48363, October 23, 1992).

DOE is now preparing an EIS (DOE-EIS-0250) to assess the potential environmental impacts from the construction, operation and monitoring, and eventual closure of the proposed geologic repository. DOE issued a Notice of Intent to prepare the EIS on August 7, 1995 (60 FR 40164). As part of its proposal, DOE is considering shipping spent nuclear fuel and high-level radioactive waste in the State of Nevada over a rail line that would be constructed or over an existing highway route that may need upgrading to accommodate heavy-haul trucks. For the rail mode, DOE is evaluating five potential corridors (Figure 1). For the heavy-haul truck mode, DOE is evaluating three potential locations for an intermodal transfer station associated with five potential highway routes (Figure 2; an intermodal transfer station is a facility at which shipping casks containing spent nuclear fuel and high-level radioactive waste would be transferred from trains to trucks, and empty shipping casks would be transferred from trucks to trains). The rail corridors would be about 400 meters (0.25 mile) wide. The Carlin Corridor would be the longest at 520 kilometers (323 miles) followed by the Caliente (513 kilometers, 319 miles), Caliente-Chalk Mountain (345 kilometers, 214 miles), Jean (181 kilometers, 112 miles),

and Valley Modified (159 kilometers, 98 miles) corridors. The heavy-haul routes would utilize existing roads and rights-of-ways which typically would be less than 400 meters (0.25 miles) in width. The Caliente Route would be the longest at 533 kilometers (331 miles) followed by the Caliente-Las Vegas (377 kilometers, 234 miles), Caliente-Chalk Mountain (282 kilometers, 175 miles), Sloan/Jean (190 kilometers, 118 miles) and Apex/Dry Lake (183 kilometers, 114 miles) routes.

Portions of the transportation system in the immediate vicinity of the proposed repository are likely to be located within the 100-year floodplains of Midway Valley Wash, Drillhole Wash, Busted Butte Wash and/or Fortymile Wash (Figure 3). Fortymile Wash, a major wash that flows to the Amargosa River, drains the eastern side of Yucca Mountain. Midway Valley Wash, Drillhole Wash and Busted Butte Wash are tributaries to Fortymile Wash. Although water flow in Fortymile Wash and its tributaries is rare, the area is subject to flash flooding from thunderstorms and occasional sustained precipitation. There are no naturally occurring wetlands near the proposed repository facilities, although there are two man-made well ponds in Fortymile Wash that support riparian vegetation.

If the Proposed Action were implemented, DOE would use an existing road during construction of the repository that crosses the 100-year floodplain of Fortymile Wash (Figure 3). This road and other features of site characterization that involve floodplains have previously been examined by DOE and a Statement of Findings was issued in 1992 (57 FR 48363, October 23, 1992). It is uncertain at this time whether this existing road would require upgrading to accommodate the volume and type of construction vehicles.

In addition, transportation infrastructure would be constructed either in Midway Valley Wash, Drillhole Wash and Busted Butte Wash, or in Midway Valley Wash, Drillhole Wash and Fortymile Wash. The decision on which washes would be involved is dependent on future decisions regarding the mode of transport (rail or truck) which, in turn, would require the selection of one rail corridor or the selection of one site for an intermodal transfer station and its associated heavy-haul route. Structures that might be constructed in a floodplain could include one or more bridges to span the washes, one or more roads that could pass through the washes, or a combination of roads and culverts in the washes. No other aspect of repository-

related operation of nuclear or nonnuclear facilities would be located within 500-year or 100-year floodplains.

Outside of the immediate vicinity of the proposed repository, the five rail corridors, and the three sites for an intermodal transfer station and associated five heavy-haul routes, would cross perennial and ephemeral streams, and possibly wetlands. It is likely that a combination of bridges, roads and culverts, or other engineered features, would be needed to span or otherwise cross the washes and possible wetlands, although the location of such structures is uncertain at this time.

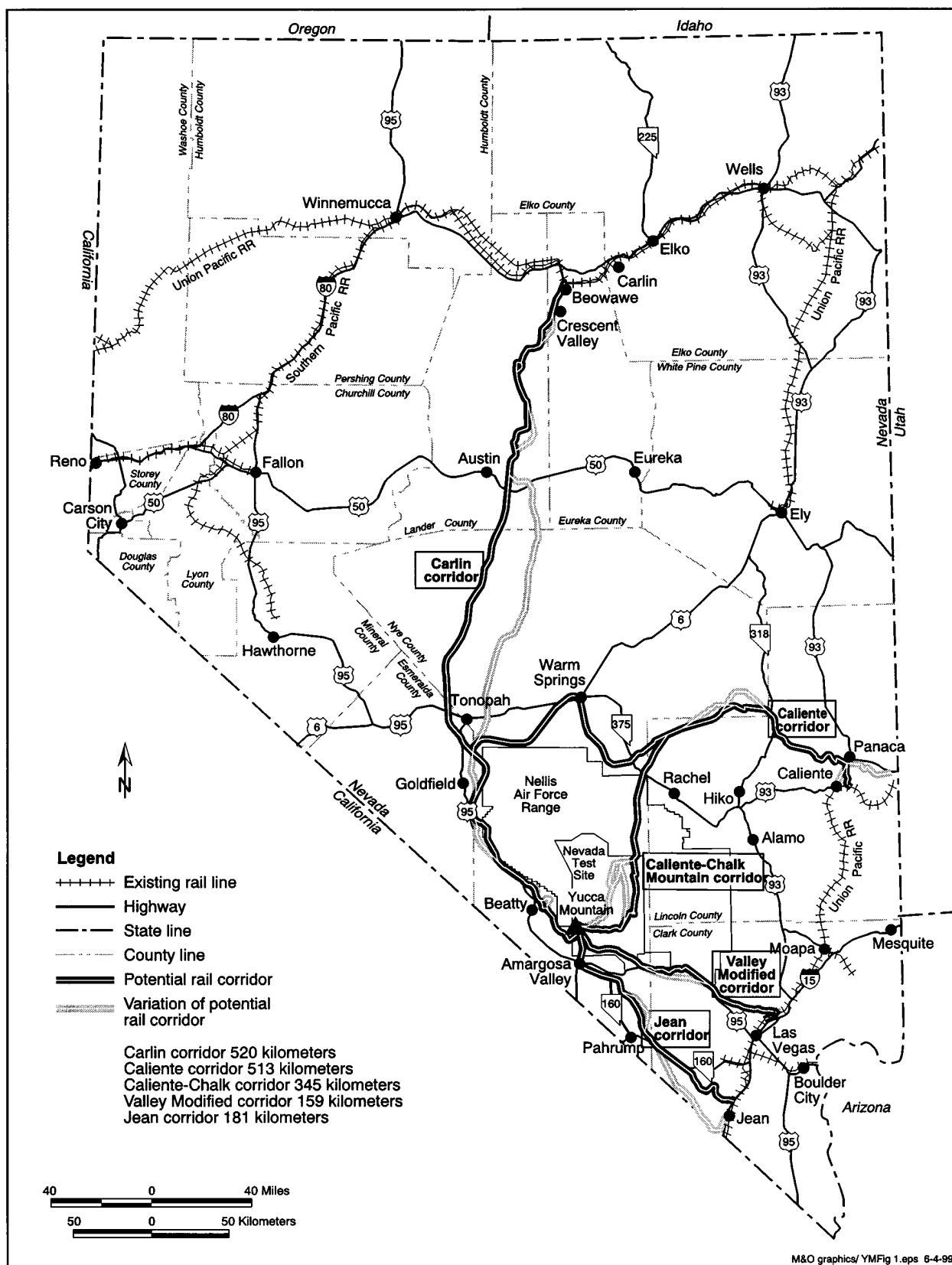
DOE will prepare an initial floodplain and wetlands assessment commensurate with the proposed decisions and available information. This assessment will be included in the Draft EIS that is scheduled to be issued for public comment later this summer. If, after a possible recommendation by the Secretary of Energy, the President considers the site qualified for an application to the U.S. Nuclear Regulatory Commission for a construction authorization, the President will submit a recommendation of the site to Congress. If the site designation becomes effective, the Secretary of Energy will submit to the Nuclear Regulatory Commission a License Application for a construction authorization. DOE would then probably select a rail corridor or a site for an intermodal transfer station among those considered in the EIS. Following such a decision, additional field surveys, environmental and engineering analyses, and National Environmental Policy Act reviews would likely be needed regarding a specific rail alignment for the selected corridor or the site for the intermodal transfer station and its associated heavy-haul truck route. When more specific information becomes available about activities proposed to take place within floodplains and wetlands, DOE will conduct further environmental review in accordance with 10 CFR Part 1022. Information that would be considered in a subsequent assessment includes, for example, the identification of 500-year and 100-year floodplains among feasible alignments of the selected rail corridor or the site of the intermodal transfer station and its associated heavy-haul route, identification of individual wetlands, and whether the floodplains and wetlands could be avoided. If the floodplains and wetlands could not be avoided, information on specific engineering designs and associated construction activities in the floodplains and wetlands also would be needed to permit a more detailed assessment and

to ensure that DOE minimizes potential harm to or within any affected floodplains or wetlands.

Issued in Las Vegas, Nevada, on the 4th day of June 1999.

**Wendy Dixon,**  
*EIS Project Manager.*

BILLING CODE 6450-01-P



**Figure 1.** Potential Nevada rail corridors to Yucca Mountain.

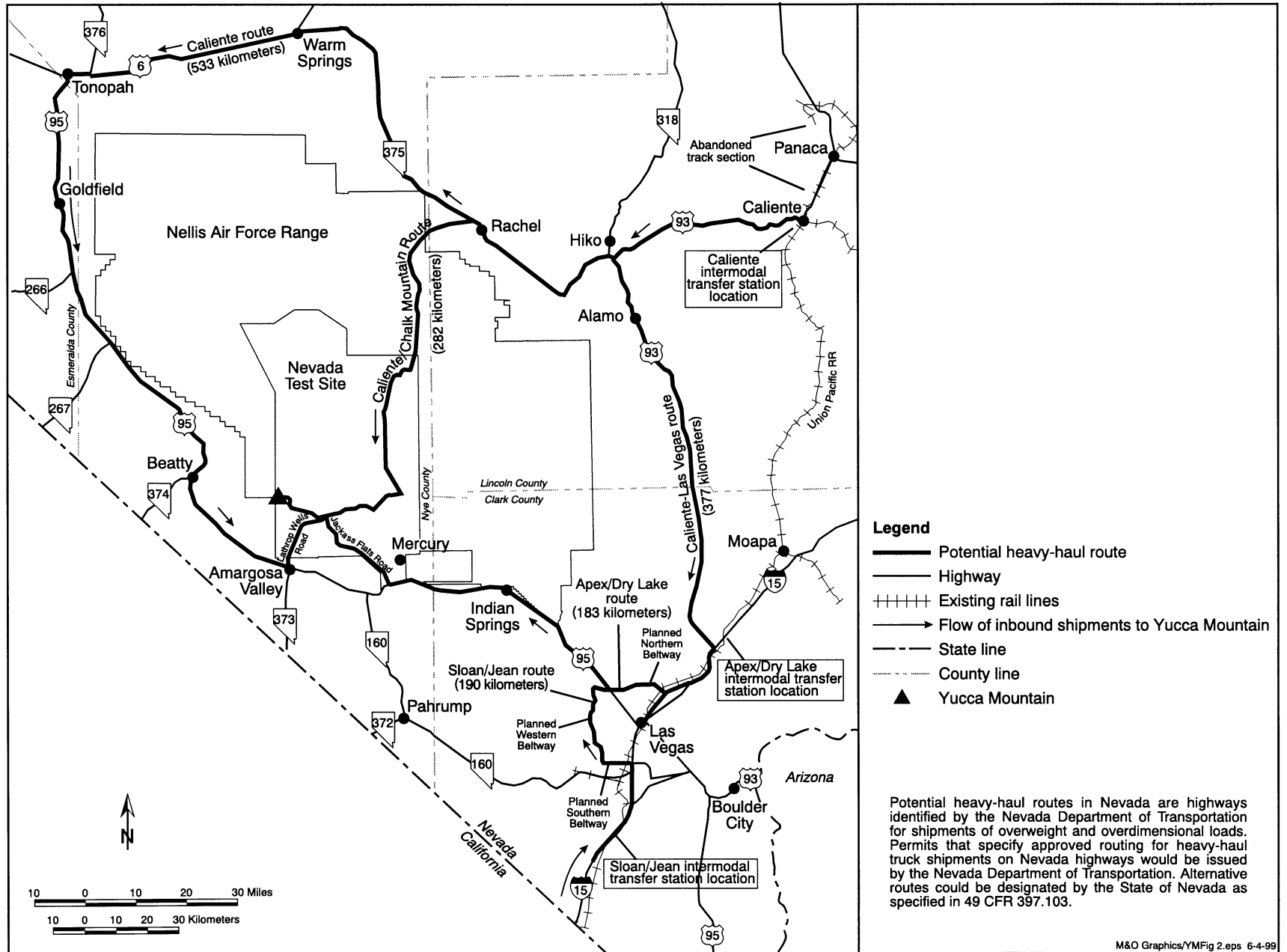
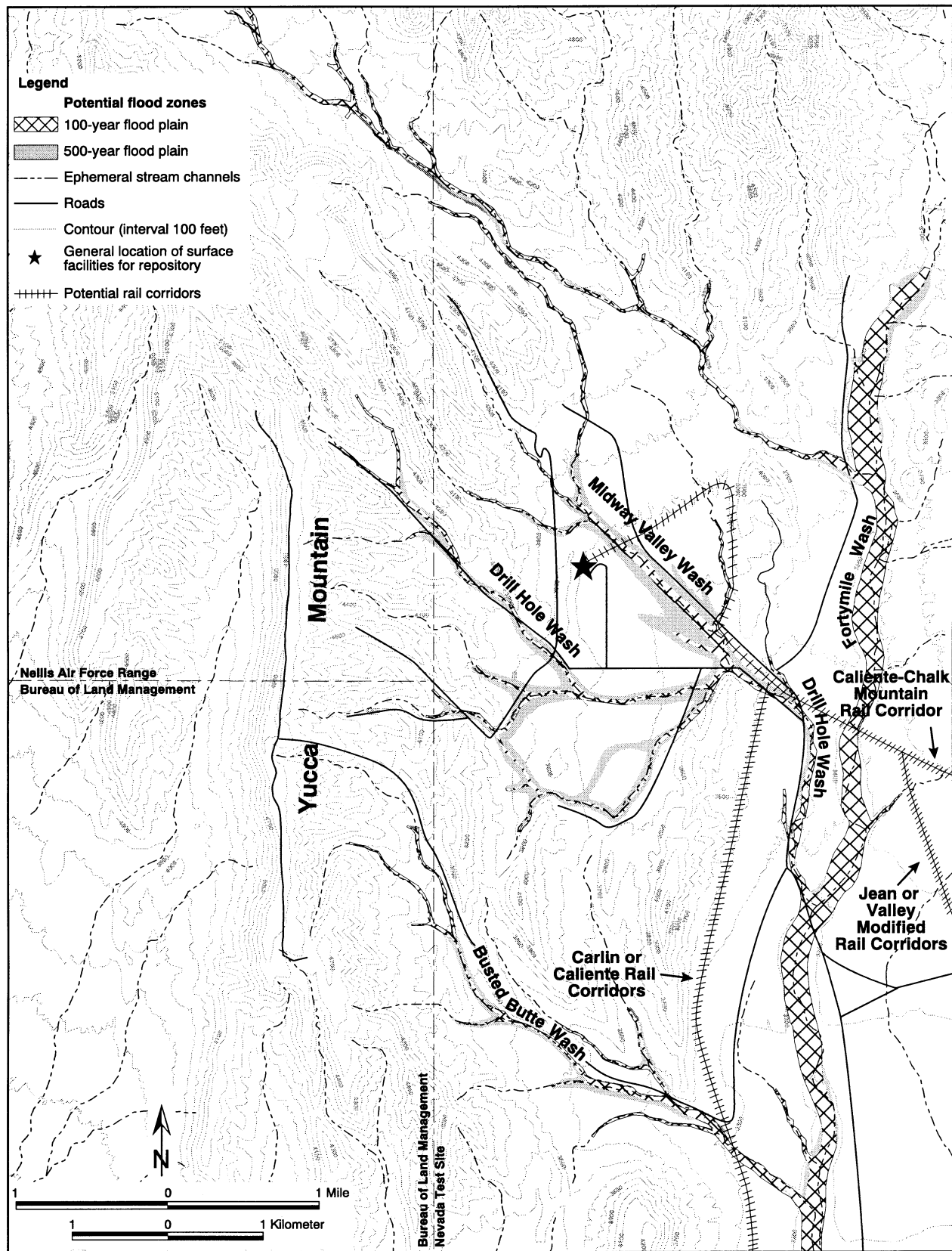


Figure 2. Potential routes in Nevada for heavy-haul trucks.



**Figure 3.** Yucca Mountain site topography, plains, and potential rail corridors.